

No. P-63013/26 /2018/Mod-I/BSF 770-72
Government of India Ministry of Home Affairs
Directorate General Border Security Force
(Prov Dte: Mod Cell)
(Fax: 011-24367683)

Block No.10, CGO Complex,
Lodhi Road, New Delhi-03

Dated, the 9th April 2019

To,


The AIG (Tech)
HQr, CISF
Block No. 13, CGO Complex,
Lodhi Road, New Delhi-110003

Sub: **Forwarding of QRs and Trial Directives of Motorized Sliding Gate and Mobile Raised Observation Post**

Ref : HQ DG BSF, CISF letter No. W-42026 (1)/5/Tech/(QRs:NB&SB)/(37760)/18-1043 dated 13th March 2019.

2. Find enclosed herewith QRs and Trial Directives of **"Motorized Sliding Gate and Mobile Raised observation Post"** as per appendix 'A' and 'B' duly finalized by Sub group of technical experts and approved by DG BSF for your information and necessary action please.

Encl : As above


Dy. Inspector General (Prov)
FHQ BSF, New Delhi

Copy to :-

1. SO (IT),
North Block MHA,
New Delhi : You are requested to host the above QRs and TDs on MHA website please.
2. IT Cell
FHQ BSF,
New Delhi : You are requested to host the above QRs and TDs on BSF website please.

QRs OF MOTORIZED SLIDING GATE WITH OPEN PROTOCOL AND SAFETY MECHANISMS

SN	Technical Features	Specification
01	Features of Gate	<p>i) Gate of material should be Steel (MS/SS to be specified by User), and should have standard design for use in government premises.</p> <p>ii) The gate leaf should comprise rectangular hollow section/square hollow section, square bars and perimeter frame of sufficient strength.</p> <p>iii) The gate should be supported by MS/SS(to be specified by User) adjustable upper guide bracket with bearing, guide post with safety strike, 4" MS/SS wheels (to be specified by User) with ball bearings and axle with lubrication point. The track should be 25mm toughened MS/SS (to be specified by User) bar mounted on top of a 4" wide MS/SS (to be specified by User) plate of adequate strength.</p> <p>iv) The gate should be coated with epoxy primer.</p> <p>v) The dimension of the gate and weight ($\pm 10\%$) shall be determined by user as per their requirements (For calculation Standard weight chart is enclosed).</p> <p>vi) The complete system should be sustainable for smooth operation of the gate.</p> <p>vii) The gate system should have electromechanical operation.</p> <p>viii) It should have non reversing system by an electric break to prevent movement of sliding leaves when the motor is stopped.</p> <p>ix) The gate sliding rail must be linear and horizontal.</p>
02.	Operational features of Motor	<p>i) It should be capable to operate industrial sliding gate weighing up to weight of the gate defined by user or more.</p> <p>ii) Speed of motor could be fixed/adjustable as per the requirement of user with a minimum speed of 12mts/m.</p> <p>iii) It should be ideal for fast operation and continuous duty.</p> <p>iv) It should have reversible gear motor with electric brake.</p> <p>v) It should have frequency Inverter for programming of</p> <ol style="list-style-type: none"> a) Running Speed. b) Deceleration Speed. c) Ramp-up time (acceleration) d) Ramp-down time (deceleration) <p>vi) The control panel should be integrated and protected by metal housing and fibre cover for all weather operation.</p> <p>vii) There should be slot holes and height adjustment pins for adjusting position of the motor.</p> <p>viii) The motor should have adequate covering for all weather protection.</p>

		<p>ix) In the event of power failure, it should be possible to move the gate manually and the manual release device can be activated from the outside of the motor without removing the cover.</p> <p>x) Rack of galvanized steel as per the length of the gate</p> <p>xi) Operation of Gate through push button and remote</p> <p>xii) Photocell should be provided for the safety of the vehicle/pedestrians during the operation of the Gate</p> <p>xiii) Flash light during the operation of the Gate.</p>
3	Technical features of motor	<p>a) Power supply 230v~(+/-5%), 50Hz</p> <p>b) Use temperature (°C) -10 to +55 deg °C.</p> <p>c) Protection class IP 44 or better.</p>



(Subhash)
SI/RM/BSF




(Jeet Singh)
Insp/ITBP



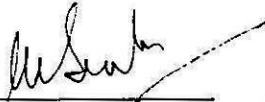
(Jeet Singh)
NB/Sub Comm./AR



(Ravindra Singh Chauhan)
Asstt. Commandant/NSG



(Pramod Kumar)
Asstt. Commandant/SSB



(Krishna Kant Sinha)
SSA/BPR&D



(Abhiram Pankaj)
2I/C/CRPF



(Sanjay Prakash)
DIG/GBS/CISF



ADG/HQ
CISF
(Chairman)

Approved/Not Approved



DG/BSF

TRIAL DIRECTIVES OF MOTORIZED SLIDING GATE WITH OPEN PROTOCOL AND SAFETY MECHANISMS

SN	Technical Features	Specification	Trial Directives
01	Features of Gate	<p>i) Gate of material should be Steel (MS/SS to be specified by User), and should have standard design for use in government premises.</p> <p>ii) The gate leaf should comprise rectangular hollow section/square hollow section, square bars and perimeter frame of sufficient strength.</p> <p>iii) The gate should be supported by MS/SS(to be specified by User) adjustable upper guide bracket with bearing, guide post with safety strike, 4" MS/SS wheels (to be specified by User) with ball bearings and axle with lubrication point. The track should be 25mm toughened MS/SS (to be specified by User) bar mounted on top of a 4" wide MS/SS (to be specified by User) plate of adequate strength</p> <p>iv) The gate should be coated with epoxy primer.</p> <p>v) The dimension of the gate and weight ($\pm 10\%$) shall be determined by user as per their requirements (For calculation Standard weight chart is enclosed).</p> <p>vi) The complete system should be sustainable for smooth operation of the gate.</p> <p>vii) The gate system should have electromechanical operation.</p> <p>viii) It should have non reversing system by an electric break to prevent movement of sliding leaves when the motor is stopped.</p> <p>ix) The gate sliding rail must be linear and horizontal.</p>	To be physically checked by BOO.
02.	Operational features of Motor	<p>i. It should be capable to operate industrial sliding gate weighing up to weight of the gate defined by user or more.</p> <p>ii. Speed of motor could be fixed/adjustable as per the requirement of user with a minimum speed of 12mts/m.</p> <p>iii. It should be ideal for fast operation and continuous duty.</p> <p>iv. It should have reversible gear motor with electric brake.</p> <p>v. It should have frequency Inverter for programming of</p> <ol style="list-style-type: none"> a) Running Speed. b) Deceleration Speed. c) Ramp-up time (acceleration) 	To be physically checked by BOO and firm to provide undertaking in this regard.

		<p>d) Ramp-down time (deceleration)</p> <p>vi. The control panel should be integrated and protected by metal housing and fibre cover for all weather operation.</p> <p>vii. There should be slot holes and height adjustment pins for adjusting position of the motor.</p> <p>viii. The motor should have adequate covering for all weather conditions.</p> <p>ix. In the event of power failure, it should be possible to move the gate manually and the manual release device can be activated from the outside of the motor without removing the cover.</p> <p>x. Rack of galvanized steel as per the length of the gate</p> <p>xi. Operation of Gate through push button and remote</p> <p>xii. Photocell should be provided for the safety of the vehicle/pedestrians during the operation of the Gate.</p> <p>xiii. Flash light during the operation of the Gate.</p>	
3	Technical features of motor	<p>a) Power supply 230v~(+/-5%), 50Hz</p> <p>b) Use temperature (°C) -10 to +55 deg °C.</p> <p>c) Protection class IP 44 or better.</p>	To be physically checked by BOO and firm to provide national/international accredited lab certificate in reference to point

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DIG/GBS/CISF

ADG/HQ
CISF

(Chairman)

Approved/Not Approved

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Standard Weight Chart

M. S. ROUND & SQUARES

Size MM	Kg. / m.	Kg. / m.
5.0	0.15	0.20
6.0	0.22	0.28
8.0	0.39	0.50
10.0	0.62	0.78
12.0	0.90	1.13
16.0	1.60	2.01
18.0	2.00	2.54
20.0	2.50	3.14
22.0	3.00	3.80
25.0	3.80	4.91
27.0	4.48	-
28.0	4.80	6.15
32.0	6.30	8.04
33.5	6.92	-
36.0	8.00	10.17
40.0	9.90	12.56
45.0	12.30	15.90
47.0	13.62	-
50.0	15.40	19.62
53.0	17.32	-
56.0	19.34	24.62
63.0	24.50	31.16
67.0	27.70	-
71.0	31.80	39.57
80.0	39.46	50.24
90.0	49.94	63.58
100.0	61.66	78.50
110.0	74.60	94.98
125.0	96.34	122.66
140.0	120.84	153.86
160.0	157.84	200.95
180.0	200.00	254.34
200.0	246.62	324.00

M. S. ANGLES

Size in mm.	Wt. per meter in Kg.
20 X 20 X 3	0.9
25 X 25 X 3	1.1
25 X 25 X 5	1.8
30 X 30 X 3	1.4
35 X 35 X 3	1.6
35 X 35 X 5	2.6
40 X 40 X 3	1.8
40 X 40 X 5	3.0
40 X 40 X 6	3.5
45 X 45 X 5	3.4
45 X 45 X 6	4.0
50 X 50 X 5	3.8
50 X 50 X 6	4.5
60 X 60 X 5	4.5
60 X 60 X 6	5.4
60 X 60 X 8	7.0
65 X 65 X 5	4.9
65 X 65 X 6	5.8
65 X 65 X 8	7.7
65 X 65 X 10	9.4
70 X 70 X 5	5.3
70 X 70 X 6	6.3
75 X 75 X 5	5.7
75 X 75 x 6	6.8
75 X 75 x 8	8.9
75 X 75 x 10	11.0
80 X 80 X 6	7.3
80 X 80 X 8	9.6
80 X 80 X 10	11.8
90 X 90 X 6	8.2
90 X 90 X 8	10.8
90 X 90 x10	13.4
90 X 90 X12	15.8
100x100 x 6	09.2
100x100 x 8	12.1
100x100 x 10	14.9
100x100 x 12	17.7
110 X 110X8	13.4
110 X 110X10	16.5
150 X 150 X10	22.8
150 X 150 X11	27.2
200 X 200 X12	36.6

M. S. PLATES

Thickness In mm	Wt. per Sq. m. In Kg.	Wt. per Sq. FT. In Kg.
5 mm	39.2kg	3.64
5.5 mm	43.2kg	4.01
6 mm	47.1kg	4.38
7 mm	55.0kg	5.11
8 mm	62.8kg	5.87
9 mm	70.6kg	6.56
10 mm	78.5kg	7.29
11 mm	86.4kg	8.03
12 mm	94.2kg	8.75
14 mm	109.9kg	10.21
16 mm	125.6kg	11.68
18 mm	141.3kg	13.13
20 mm	157.0kg	14.59
22 mm	172.7kg	16.04
25 mm	196.2kg	18.23
28 mm	219.8kg	20.42
32 mm	251.2kg	23.34
36 mm	282.6kg	26.25
40 mm	314.0kg	29.17
45 mm	353.2kg	32.81
50 mm	392.5kg	36.46
56 mm	439.6kg	40.83
63 mm	494.6kg	45.95
71 mm	557.4kg	51.78
80 mm	628.0kg	58.34